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L2 ANSWER 1 OF 1 WPINDEX (C) 2002 THOMSON DERWENT

ACCESSION NUMBER: 1998-181528 [17] WPINDEX

DOC. NO. NON-CPI: N1998-143713

DOC. NO. CPI: C1998-058305

TITLE: Apparatus for reducing concentration of carbon monoxide
in hydrogen-rich gas - includes selective oxidation unit
containing predetermined amount of oxidation catalyst

and

of catalyst amount control unit for regulating the amount
of catalyst actually used.

DERWENT CLASS: E36 H06 X16

INVENTOR(S): AOYAMA, S

PATENT ASSIGNEE(S): (TOYT) TOYOTA JIDOSHA KK

COUNTRY COUNT: 21

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN	IPC
EP 833401	A2	19980401	(199817)*	EN	55	H01M008-06	
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE							
JP 10101302	A	19980421	(199826)		32	C01B003-58	
KR 98024908	A	19980706	(199927)			H01M008-06	<--
US 6290913	B1	20010918	(200157)			G05D007-00	
KR 286414	B	20010416	(200218)			H01M008-06	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 833401	A2	EP 1997-116558	19970923
JP 10101302	A	JP 1996-274113	19960924
KR 98024908	A	KR 1997-48479	19970924
US 6290913	B1	US 1997-935899	19970923
KR 286414	B	KR 1997-48479	19970924

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PATENT NO	KIND	PATENT NO
KR 286414	B Previous Publ.	KR 98024908

PRIORITY APPLN. INFO: JP 1996-274113 19960924

INT. PATENT CLASSIF.:

MAIN: C01B003-58; G05D007-00; H01M008-06

SECONDARY: B01J023-42; C10K003-04

BASIC ABSTRACT:

EP 833401 A UPAB: 19980428

An apparatus for reducing concentration of carbon monoxide included in a carbon monoxide-containing hydrogen-rich gas consists of: (i) a carbon monoxide selective oxidation reaction unit including a predetermined amount of a catalyst for accelerating a selective oxidation reaction of carbon monoxide, (ii) oxidising gas introduction unit for introducing an oxidising gas containing oxygen for oxidising carbon monoxide into the reaction unit, (iii) gas supply unit for feeding the hydrogen-rich gas containing carbon monoxide into the reaction unit and (iv) a catalyst amount control unit for regulating an amount of carbon monoxide selective

oxidising catalyst actually involved in the selective oxidation reaction of carbon monoxide amount a total amount of catalyst, based on the amount of carbon monoxide included in the hydrogen-rich gas. A method of reducing concentration of carbon monoxide in a hydrogen-rich gas is also claimed and comprises: (a) mixing an oxidising gas containing oxygen for oxidising carbon monoxide with the hydrogen-rich gas; and (b) utilising a carbon monoxide selective oxidation catalyst to accelerate the selective oxidation reaction of carbon monoxide, thus reducing the concentration of carbon monoxide in the hydrogen-rich gas mixture, and further includes (b-1) regulating an amount of the catalyst actually involved in the reaction based on an amount of carbon monoxide in the hydrogen-rich gas.

USE - For reducing the concentration of carbon monoxide in a hydrogen-rich gas e.g. in a fuel-cell system.

ADVANTAGE - Ensures sufficient catalyst activity for selective oxidation of carbon monoxide thus significantly reducing the concentration of carbon monoxide in the gas.

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FILE SEGMENT: CPI EPI
FIELD AVAILABILITY: AB; DCN
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